



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,138	02/20/2004	Felix Shedrinsky	11333-026001	5357

26161 7590 02/19/2009  
FISH & RICHARDSON PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
----------

NGUYEN, MINH CHAU

ART UNIT	PAPER NUMBER
----------	--------------

2445

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/19/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,138	<b>Applicant(s)</b> SHEDRINSKY, FELIX	
	<b>Examiner</b> MINH-CHAU NGUYEN	<b>Art Unit</b> 2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12,14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/30/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is responsive to the RCE amendment of the applicant filed on 1/30/09. Claims 1-4,6-12,14,16-20 are presented for further examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6-7, 10-11, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatsubra (US 2002/0078135 A1), and further in view of Bahl (US 7,003,574 B1) and Hovell et al. (Hovell) (US 7,116,681 B1).
2. Claim 1, Venkatsubra teaches a method of transferring data via a communication session between a client application behind a first firewall and a server application behind a second firewall, the method being performed by at least one device that is not behind either the first firewall or the second firewall, the method comprising:
  - creating at least one queue (i.e. receive buffer queue 424, send buffer queue 426, etc.) associated with the communication session [fig. 1A, 4, 5 step 520; and paragraph 32-35,51-61];
  - storing data passed between the client application and the server application in the at least one queue, the data being stored using an identifier

(i.e. a memory address for referencing the data packet) [fig. 1A, 4, 5 step 520; and paragraph 51-61]; and

receiving, from the client application, a command to obtain data in the at least one queue destined for the client application, and receiving, from the server application, a command to obtain data in the at least one queue destined for the server application [fig. 1A, 4; and paragraph 4,32-35,51-61], the command received from the client application being a hypertext transfer protocol (HTTP) command to retrieve data from the at least one device, and the command received from the server application being an HTTP command to retrieve data from the at least one device [paragraph 4,32-35];

Venkatsubra fails to teach assigning an identifier to the communication session; and wherein the client application and the server application run local protocols, and the data is passed between the client application and the server application via an intermediary protocol. However, Bahl and Hovell, in the same field of endeavor having closely related objectivity, Bahl teaches assigning an identifier to the communication session [Col. 9, L. 8-53; and Col. 10, L. 37-65], and Hovell teaches wherein the client application (i.e. host 28) and the server application (i.e. host 30) run local protocols (i.e. IPv6), and the data is passed between the client application and the server application via an intermediary protocol (i.e. IPv4) [figure 1].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Hovell's teachings of wherein

the client application and the server application run local protocols, and the data is passed between the client application and the server application via an intermediary protocol, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of supporting an advantage for the source/destination host need only send a standard address request message in its own protocol.

3. Claim 2, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Venkatsubra teaches creating a socket interface to at least one of the client application and the server application, data from the at least one device being transmitted through the socket interface [fig. 1A; and paragraph 7-8].
4. Claim 3, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Hovell teaches the client application (i.e. the host 28) and the server application (i.e. the host 30) are on networks (i.e. a first network and a second network) that run the local protocols (i.e. IPv6) [figure 1; and Col. 3, L. 25-32], and wherein conversion between the local protocols and the intermediary protocol occurs prior to passing the data through the device (i.e. converting between the IPv6 and IPv4 when transmitting all packet) [fig. 1&2; and Col. 6, L. 8-Col. 7, L. 50].

5. Claim 6, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Venkatsubra teaches wherein the identifier is associated with the at least one queue (i.e. the memory address is considered as the identifier for referencing the data packet within the queues) [fig. 1A, 4; and paragraph 51-61]. Besides this, Bahl teaches the identifier is the session identifier [Col. 9, L. 8-53; and Col. 10, L. 37-65]
6. Claim 7, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Bahl teaches wherein the at least device comprises a server performing load balancing to select the server to perform the method from among plural server [Col. 9, L. 8-Col. 10, L. 10].
7. Claim 10, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Bahl teaches wherein the communication session is effected via a Web site [Col. 3, L. 10-20].
8. Claim 11, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Bahl teaches further comprising maintaining a session record, the session record including an identity associated with initiation of session (i.e. a session record is implied from a session based hashing scheme) [Col. 9, L. 8-53].

Art Unit: 2445

9. Claim 19, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Hovell teaches wherein the intermediary protocol (i.e. IPv4) is different from the local protocols (i.e. IPv6) [fig. 1].

10. Claim 20, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Venkatsubra teaches wherein the intermediary protocol is a same protocol as the local protocols [fig. 1A, 4; and paragraph 4,8,32-35].

11. Claims 17-18 are corresponding machine-readable medium claims of method claims 1,19. Therefore, they are rejected under the same rationale.

12. Claims 12,14,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatsubra (US 2002/0078135 A1), and further in view of Hovell et al. (Hovell) (US 7,116,681 B1).

13. Claim 12, Venkatsubra teaches a system for transferring data via a communication session between a client application and a server application, the client application running on a first network behind a first firewall and the server application running on a second network behind a second firewall, the system comprising:

a proxy to enable communication between the client and the server, the proxy containing a message queue dedicated to the communication session, the

message queue for storing data transmitted during the communication session [fig. 1A, 4, 5 step 520; and paragraph 32-35,51-61],

wherein the proxy is configured to receive, from the client application, data in the message queue destined for the server application, and to receive, from the sever application, data in the message queue destined for the client application [fig. 1A, 4; and paragraph 4,32-35,51-61]; and

wherein the proxy is configured to receive, from the client application, a command to obtain data in the message queue destined for the client application, and to receive, from the server application, a command to obtain data in the message queue destined for the server application [fig. 1A, 4; and paragraph 4,32-35,51-61], the command received from the client application being a hypertext transfer protocol (HTTP) command to retrieve data from the at least one device, and the command received from the server application being an HTTP command to retrieve data from the at least one device [fig. 1A, 4; and paragraph 4,32-35].

Venkatsubra fails to teach a proxy having a socket to the client application, the proxy to convert data between a local protocol run on the first network to a non-local protocol; an agent having a socket to the server application, the agent to convert data between a local protocol run on the second network and the non-local protocol; and a server to enable communication between the proxy and the agent. However, Hovell, in the same field of endeavor having closely related objectivity, teaches wherein a proxy (i.e. border router



Art Unit: 2445

16A) having a socket (i.e. an ingress interface in Col. 5, L. 62-65) to the client application (i.e. host 28), the proxy to convert data between a local protocol (i.e. IPv6) run on the first network (i.e. IPv6 domain 12 in a first network) to a non-local protocol (i.e. IPv4 in a second network) (i.e. the router 16A converts the packets between the IPv6 to IPv4) [fig. 1&2; and Col. 3, L. 24-52; and Col. 5, L. 44-Col. 6, L. 42]; an agent (i.e. border router 16B) having a socket (i.e. an ingress interface in Col. 5, L. 65-Col. 6, L. 2) to the server application (i.e. host 30), the agent to convert data between a local protocol (i.e. IPv6) run on the second network (i.e. IPv6 domain 14 in a third network) and the non-local protocol (i.e. IPv4 in a second network) (i.e. the router 16B converts the packets between the IPv6 to IPv4) [fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42; and L. 55-Col. 7, L. 3]; and a server (i.e. DNS 20) to enable communication between the proxy (i.e. router 16A) and the agent (i.e. router 16B) [figure 1].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Hovell's teachings of wherein the client application and the server application run local protocols, and the data is passed between the client application and the server application via an intermediary protocol, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of supporting an advantage for the source/destination host need only send a standard address request message in its own protocol.

14. Claim 14, Venkatsubra and Hovell disclose the invention substantially as claimed. Venkatsubra teaches when data is present for the client application, the proxy (i.e. the proxy in fig 1A) obtains the data from the message queue and passes the data to the client application [fig. 1A, 4; and paragraph 32-35,51-61]. Besides this, Hovell teaches the proxy (i.e. border router 16A) having a socket (i.e. an ingress interface in Col. 5, L. 62-65) to the client application (i.e. host 28) for receiving and sending the data via the server DNS 20 [fig. 1&2; and Col. 3, L. 24-52; and Col. 5, L. 44-Col. 6, L. 42].

15. Claim 16, Venkatsubra and Hovell disclose the invention substantially as claimed. Venkatsubra teaches when data is present for the server application, the server (i.e. the proxy in fig. 1A is considered as the server) obtains the data from the message queue and passes the data to the server application [fig. 1A, 4; and paragraph 32-35,51-61]. Besides this, Hovell teaches an agent (i.e. border router 16B) having a socket (i.e. an ingress interface in Col. 5, L. 65-Col. 6, L. 2) to the server application (i.e. host 30) [fig. 1&2; and Col. 5, L. 44-Col. 6, L. 42; and L. 55-Col. 7, L. 3]; and a server (i.e. DNS 20) to enable communication between the proxy (i.e. router 16A) and the agent (i.e. router 16B) [figure 1].

16. Claims 4,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatsubra and Bahl and Hovell as applied to claim 1 above, and further in view of Blackett et al. (Blackett) (US 6,792,337 B2).

17. Claim 4, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Venkatsubra teaches the local protocols comprise at least one of TCP/IP [paragraph 4,8,32-35].

Venkatsubra and Bahl and Hovell fail to teach a serial protocol, the serial protocol comprising one of RS232 and RS485. However, Blackett, in the same field of endeavor having closely related objectivity, teaches a serial protocol, the serial protocol comprising one of RS232 and RS485 [Col. 8, L. 7-22].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Blackett's teachings of a serial protocol, the serial protocol comprising one of RS232 and RS485, with Hovell's teachings of packet network interfacing, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of accomplishing low costs and high performance in the communication sessions.

18. Claim 9, Venkatsubra and Bahl and Hovell disclose the invention substantially as claimed. Venkatsubra teaches wherein the communication session comprises a common session [paragraph 32-35,51-61].

Venkatsubra and Bahl and Hovell fail to teach the communication session comprises a telnet session. However, Blackett, in the same field of endeavor having closely related objectivity, teaches the communication session comprises a telnet session [Col. 6, L. 50-60].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Blackett's teachings of the communication session comprises a telnet session, with Hovell's teachings of packet network interfacing, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of accomplishing low costs and high performance in the communication sessions.

19. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatsubra and Bahl and Hovell as applied to claim 1 above, and further in view of Niblett et al. (Niblett) (US 6,336,135 B1).

20. Claim 8, Venkatsubra and Bahl and Hovell are relied upon for the disclosure set forth in the previous rejection. Bahl teaches the identifier (i.e. session identifier) is validated for the communication session [Col. 9, L. 8-Col. 10, L. 65].

Venkatsubra and Bahl and Hovell fail to teach the identifier is invalidated when the communication session terminates. However, Niblett, in the same field

of endeavor having closely related objectivity, teaches the identifier is invalidated when the communication session terminates [Col. 15, L. 25-36].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Niblett's teachings of the identifier is invalidated when the communication session terminates, with Hovell's teachings of packet network interfacing, with Bahl's teachings of assigning an identifier to the communication session, in the teachings of Venkatsubra in method and apparatus for improving the operation of an application layer proxy, for the purpose of accomplishing low costs and high performance in the communication sessions.

### ***Response to Arguments***

Applicant's arguments filed 1/30/09 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1-4,6-12,14,16-20 have been considered but are moot in view of the new ground(s) of rejection.

21. (A) Applications reside on a single host computer and not behind firewalls.

As to point (A), in response to applicant' argument, the recitation "a client application is behind a first firewall and a sever application behind a second firewall" or "application reside on a single host computer and not behind firewalls"

Art Unit: 2445

has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2445

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU NGUYEN whose telephone number is (571) 272-4242. The examiner can normally be reached on 7AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrice Winder/  
Primary Examiner, Art Unit 2445

/M. N./

Examiner: Minh-Chau Nguyen, Art Unit 2445